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and

administering into the vasculature of said body a contrast enhancing amount of a paramagnetic metal containing magnetic resonance imaging contrast agent;

subjecting said body to a magnetic resonance imaging procedure capable of generating from magnetic resonance signals from said body a series of temporally spaced images of at least a part of said body into which said contrast agent passes, said procedure being a fast, high speed or single shot imaging procedure, to detect temporal variations in said magnetic resonance signals or images;

detecting blood flow abnormality or flow variation in obstructed blood vessels in said body;

and identifying from said temporal variations in said images the blood flow abnormality.

REMARKS

Pending Claims:

In this application, claims 1-4, 8, and 21 and 24 are currently pending and under consideration after a response to a restriction requirement.

Applicant has added dependant claims further clarifying the scope of the invention and has amended independent claims to address the Examiners rejections.

A separate sheet identifies the locations of changes to the claims.

Rejection under 35 U.S.C. §112 (paragraph 2)

In the Office Action, a rejection was made under 35 U.S.C. §112 (paragraph 2) to claims 1-4, 8 and 21. Amendments to the independent claims address this rejection. Applicant has amended the claims to address the rejection based upon Section 112. More specifically the Applicant has conformed the antecedent basis of certain claims elements so that the recitations are identical throughout the claim. Amendments complimentary to claim 1 have been introduced into claim 21 which is the only other independent claim presently pending.

Rejection under 35 U.S.C. §103

The Examiner has rejected claims 1-4, 8 and 21 as being unpatentable as "obvious" in view of four publications. The Applicants understand that the Examiner is

relying on these references based upon the 102B dates. Applicants submit an affidavit under Rule 131 indicating and specifically showing that they possessed the invention presently presented in claims 1 and 21 prior to the effective date of the "Rosen reference". The remaining references are inadequate in combination to render the now claimed invention obvious to one of ordinary skill in the art.

Double Patenting Rejection

With respect to the double patenting rejection of claim 1, kindly reconsider this in light of the proposed amendment, and if made final and if the claims are otherwise allowable, Applicant will file a terminal disclaimer.

Declaration

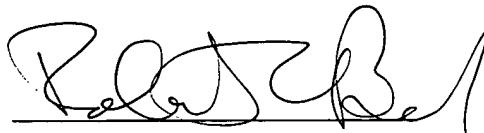
Applicant has submitted an unsigned declaration antedating the Rosen reference. applicants' attorney will promptly supply a signed declaration by FAX.

CONCLUSION

All of the claims remaining in this application should now be seen to be in condition for allowance. The prompt issuance of a notice to that effect is solicited.

Respectfully submitted,
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Claims

1. A method of detecting blood flow abnormality or variation, in a human or non-human body, said method comprising the steps of:

~~administering into the systemic~~ ~~administering into the~~ vasculature of said body ~~a timed injection of~~ a contrast enhancing amount of ~~an intravascular~~ paramagnetic metal containing magnetic resonance imaging contrast agent; ~~subjecting said body to a magnetic resonance imaging procedure capable of generating from magnetic resonance signals from said body a series of temporally spaced images of at least a part of said body into which said agent passes, said procedure being a fast imaging fast, high speed or single shot imaging procedure;~~ ~~procedure having an image acquisition time of less than 5 seconds; detecting~~ ~~detecting temporal variations in said signals or images; and from said temporal variations identifying regions of abnormal or modified blood flow in said body and providing a quantitative images to identify regions of abnormality to provide an indication of the degree of blood flow abnormality.~~ ~~abnormality or modification therein.~~

2. A method according to claim 1 wherein said contrast agent comprises a physiologically tolerable chelate complex of a paramagnetic lanthanide ion or a physiologically tolerable salt of such a chelate.

21. A method of detecting and ~~quantitatively evaluation~~ ~~evaluating~~ the severity of ~~ischemia~~ ~~blood flow abnormality~~ in a human or non-human body, said method comprising the steps of: ~~administering into the systemic vasculature of said body a contrast enhancing amount of an intravascular paramagnetic metal containing~~ ~~administering into the vasculature of said body a contrast enhancing amount of a paramagnetic metal containing magnetic resonance imaging contrast agent;~~ ~~magnetic susceptibility magnetic resonance imaging contrast agent;~~ subjecting said body to a magnetic resonance imaging procedure capable of generating from magnetic resonance signals from said body a series of temporally spaced images of at least a part of said body into which said ~~contrast~~ agent passes, said procedure being a ~~fast, high speed or single~~ ~~fast imaging procedure having an image acquisition time of less than 5 seconds; detecting~~ ~~shot imaging procedure, to detect~~ temporal variations in said ~~magnetic resonance~~ signals or ~~images;~~ ~~detecting blood flow abnormality or flow variation in obstructed blood vessels in said body;~~